IN THE CLAIMS

Please amend the claims as follows:

1-15. (Canceled)

16. (Currently Amended) A processing apparatus, comprising:

an encoder ~~operable~~ configured to encode video and/or audio signals to generate stream files~~; the stream files being composed of compressed video data~~;

a processor ~~operable~~ configured to generate ~~plural types of characteristic point information for the video and audio signals contained in each stream file; the~~ characteristic point information including a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information, ~~positional information indicating a user designated position and content related positions;~~ the characteristic point information being included in a ~~management~~ program information file corresponding to each stream file and being used to access characteristic points when reproducing the stream files; and

a recording unit ~~operable~~ configured to record the stream files and corresponding ~~management~~ program information files containing the ~~plural types of~~ characteristic point information respectively in a recording medium[[;]] ~~the plural types of characteristic point information being correlated with respective positions of the characteristic point information~~.

17. (Currently Amended) The processing apparatus according to claim 16, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [a]] the program.

18. (Currently Amended) The processing apparatus according to claim 17, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

19. (Currently Amended) The processing apparatus according to claim 17, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

20. (Currently Amended) A processing apparatus for use in conjunction with a recording device, comprising:

a processor ~~operable~~ configured to generate ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated type characteristic point and a content related type characteristic point from~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information an input video and audio signal; and

a generator ~~operable~~ configurable to generate ~~management~~ program information containing the ~~plural types of~~ characteristic point information[[;]] ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~.

21. (Currently Amended) The processing apparatus according to claim 20, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

22. (Currently Amended) The processing apparatus according to claim 21, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

23. (Currently Amended) The processing apparatus according to claim 21, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

24. (Currently Amended) A processing apparatus for use in conjunction with a recording device, comprising:

a processor ~~operable~~ configured to generate ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated type characteristic point and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from [[an]] input video [[and]] and/or audio ~~signal~~ signals;

a user interface ~~operable~~ configured to receive a user operation indicative of the user designated position; and

a generator ~~operable~~ configured to generate ~~management~~ program information containing the ~~plural types of~~ characteristic point information[[;]] ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~.

25. (Currently Amended) The processing apparatus according to claim 24, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

26. (Currently Amended) The processing apparatus according to claim 25, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

27. (Currently Amended) The processing apparatus according to claim 25, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

28. (Currently Amended) processing method, comprising the steps of:

an encoding step of encoding video and audio signals to generate stream files; ~~the stream files being composed of compressed video data;~~

a processing step of generating ~~plural types of~~ characteristic point information for the video [[and]] or audio signals contained in each stream file[[;]], the characteristic point information including ~~positional information indicating a user-designated position and content related positions;~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information, the characteristic point information being included in a ~~management~~ program information file corresponding to each stream file and being used to access characteristic points when reproducing the stream files; and

a recording step of recording the stream files and corresponding ~~management~~ program information files containing the ~~plural types of~~ characteristic point information respectively

in a recording medium[[;]] ~~the plural types of characteristic point information being correlated with respective positions of the characteristic point information~~.

29. (Currently Amended) The processing method according to claim 28, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

30. (Currently Amended) The processing method according to claim 29, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

31. (Currently Amended) The processing method according to claim 29, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

32. (Currently Amended) A processing method for use in conjunction with a recording device, comprising:

a processing step of generating ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated type characteristic point and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from [[an]] input video [[and]] and/or audio ~~signal~~ signals; and

a generating step of generating ~~management~~ program information containing the ~~plural types of~~ characteristic point information[[;]] ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~.

33. (Currently Amended) The processing method according to claim 32, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

34. (Currently Amended) The processing method according to claim 33, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

35. (Currently Amended) The processing method according to claim 33, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

36. (Currently Amended) A processing method for use in conjunction with a recording device, comprising:

a processing step of generating ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated type characteristic point and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from [[an]] input video [[and]] and/or audio ~~signal~~ signals;

a receiving step of receiving a user operation indicative of the user designated position; and

a generating step of generating ~~management~~ program information containing the plural types of characteristic point information[[;]] ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~.

37. (Currently Amended) The processing method according to claim 36, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

38. (Currently Amended) The processing method according to claim 37, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

39. (Currently Amended) The processing method according to claim 37, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

40. (Currently Amended) A computer program encoded on a computer-readable medium, for performing a processing method, comprising:

an encoding step of encoding video and audio signals to generate stream files~~; the stream files being composed of compressed video data~~;

a processing step of generating ~~plural types of~~ characteristic point information for the video [[and]] or audio signals contained in each stream file[[;]], the characteristic point information including ~~positional information indicating a user designated position and~~

~~content related positions;~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information, the characteristic point information being included in a ~~management~~ program information file corresponding to each stream file and being used to access characteristic points when reproducing the stream files; and

a recording step of recording the stream files and corresponding ~~management~~ program information files containing the ~~plural types of~~ characteristic point information respectively in a recording medium[[;]] ~~the plural types of characteristic point information being correlated with respective positions of the characteristic point information~~.

41. (Currently Amended) The computer program according to claim 40, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

42. (Currently Amended) The computer program according to claim 41, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

43. (Currently Amended) The computer program according to claim 41, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

44. (Currently Amended) A computer program encoded on a computer-readable medium, for performing a processing method in conjunction with a recording device, comprising:

a processing step of generating ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated type characteristic point and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from [[an]] input video [[and]] and/or audio ~~signal~~ signals; and

a generating step of generating ~~management~~ program information containing the ~~plural types of~~ characteristic point information[[;]] ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~.

45. (Currently Amended) The computer program according to claim 44, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

46. (Currently Amended) The computer program according to claim 45, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

47. (Currently Amended) The processing method according to claim 45, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

48. (Currently Amended) A computer program encoded on a computer-readable medium, for performing a processing method in conjunction with a recording device, comprising:

a processing step of generating ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated type characteristic point and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from [[an]] input video [[and]] and/or audio ~~signal~~ signals;

a receiving step of receiving a user operation indicative of the user designated position; and

a generating step of generating ~~management~~ program information containing the ~~plural types of~~ characteristic point information[[;]] ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~.

49. (Currently Amended) The computer program according to claim 48, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

50. (Currently Amended) The computer program according to claim 49, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

51. (Currently Amended) The computer program according to claim 49, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

52. (Currently Amended) A processing apparatus, comprising:

a reproducing unit ~~operable~~ configured to reproduce stream files containing video [[and]] and/or audio signals and corresponding management information files recorded on a recording medium~~; the stream files being composed of compressed video data~~;

a processor ~~operable~~ configured to generate ~~plural types of~~ characteristic point information from the management information file corresponding to each stream[[;]], the characteristic point information including ~~positional information indicating a user designated position and content related positions;~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information, the ~~plural types of~~ characteristic point information being correlated with respective positions of the characteristic point information; and

a controller ~~for controlling~~ configured to control reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

53. (Currently Amended) The processing apparatus according to claim 52, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

54. (Currently Amended) The processing apparatus according to claim 53, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

55. (Currently Amended) The processing apparatus according to claim 53, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

56. (Currently Amended) A processing apparatus for use in conjunction with a reproducing device, comprising:

a processor ~~operable~~ configured to reproduce ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated position and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from ~~management~~ program information files corresponding to stream files containing [[a]] video [[and]] and/or audio ~~signal;~~ signals ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~; and

a controller ~~for controlling~~ configured to control reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

57. (Currently Amended) The processing apparatus according to claim 56, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

58. (Currently Amended) The processing apparatus according to claim 57, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

59. (Currently Amended) The processing apparatus according to claim 57, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

60-63. (Cancelled)

64. (Currently Amended) A processing method, comprising the steps of:

a reproducing step of reproducing stream files containing video [[and]] and/or audio signals and corresponding ~~management~~ program information files recorded on a recording medium~~; the stream files being composed of compressed video data~~;

a processing step of generating ~~plural types of~~ characteristic point information from the ~~management~~ program information file corresponding to each stream[[;]], the characteristic point information including ~~positional information indicating a user designated position and content related positions;~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information, the ~~plural types of~~ characteristic point information being correlated with respective positions of the characteristic point information; and

a control step of controlling reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

65. (Currently Amended) The processing method according to claim 64, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

66. (Currently Amended) The processing method according to claim 65, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

67. (Currently Amended) The processing method according to claim 65, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

68. (Currently Amended) A processing method for use in conjunction with a recording device, comprising:

a processing step of reproducing ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated position and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from ~~management~~ program information files corresponding to stream files containing [[a]] video [[and]] and/or audio ~~signal;~~ signals ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~; and

a control step of controlling reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

69. (Currently Amended) The processing method according to claim 68, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

70. (Currently Amended) The processing method according to claim 69, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

71. (Currently Amended) The processing method according to claim 69, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

72. (Currently Amended) A processing method for use in conjunction with a recording device, comprising:

a processing step of reproducing ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated position and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from ~~management~~ program information files corresponding to stream files containing [[a]] video [[and]] and/or audio ~~signal;~~ signals ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~;

a receiving step of receiving a user operation indicative of the user designated position; and

a control step of controlling reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

73. (Currently Amended) The processing method according to claim 72, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

74. (Currently Amended) The processing method according to claim 73, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

75. (Currently Amended) The processing method according to claim 73, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

76. (Currently Amended) A computer program encoded on a computer-readable medium, for performing a processing method, comprising:

a reproducing step of reproducing stream files containing video [[and]] and/or audio signals and corresponding ~~management~~ program information files recorded on a recording medium~~; the stream files being composed of compressed video data~~;

a processing step of generating ~~plural types of~~ characteristic point information from the ~~management~~ program information file corresponding to each stream[[;]], the characteristic point information including ~~positional information indicating a user designated position and content related positions;~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information ~~the plural types of characteristic point information being correlated with respective positions of the characteristic point information~~; and

a control step of controlling reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

77. (Currently Amended) The computer program according to claim 76, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

78. (Currently Amended) The computer program according to claim 77, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

79. (Currently Amended) The computer program according to claim 77, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

80. (Currently Amended) A computer program encoded on a computer-readable medium, for performing a processing method in conjunction with a reproducing device, comprising:

a processing step of reproducing ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated position and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification information from ~~management~~ program information files corresponding to stream files containing [[a]] video [[and]] and/or audio ~~signal;~~ signals ~~the types of characteristic point~~

~~information being correlated with respective positions of the characteristic point information~~; and

a control step of controlling reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

81. (Currently Amended) The computer program according to claim 80, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

82. (Currently Amended) The computer program according to claim 81, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

83. (Currently Amended) The computer program according to claim 81, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.

84. (Currently Amended) A computer program encoded on a computer-readable medium, for performing a processing method in conjunction with a reproducing device, comprising:

a processing step of reproducing ~~plural types of~~ characteristic point information including ~~positional information indicating a user designated position and a content related type characteristic point~~ a number of streams used by a program, identification information of each stream, and attribute information of each stream corresponding to each identification

information from ~~management~~ program information files corresponding to stream files containing [[a]] video [[and]] and/or audio ~~signal;~~ signals ~~the types of characteristic point information being correlated with respective positions of the characteristic point information~~;

a receiving step of receiving a user operation indicative of the user designated position; and

a control step of controlling reproduction of said stream files based on the ~~plural types of said~~ characteristic point information reproduced from the corresponding ~~management~~ program information files.

85. (Currently Amended) The computer program according to claim 84, wherein said ~~content related positions~~ characteristic point information includes at least one of a start point, an end point, and a scene change point of [[a]] the program.

86. (Currently Amended) The computer program according to claim 85, wherein said ~~content related positions~~ characteristic point information further includes an I-picture position of the program.

87. (Currently Amended) The computer program according to claim 85, wherein said ~~content related positions~~ characteristic point information further includes a silent point of the program.